

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C5909A

Gold Hole Plug

Description

C5909A is a gold paste designed as a hole plug in alumina substrates. The high solids loading allows for excellent filling properties with bladder fill machines. C 5909A has low shrinkage, which allows for a complete fill of the through hole.

Key Benefits

- High solids loading
- Low shrinkage
- For use with bladder fill machines

Recommended Processing Guidelines

Application

Bladder Fill Machine

Drying

150 °C for 15 minutes

Firing

850 °C peak temperature

Dwell time 8 – 12 minutes

Thinner (Thinning is generally not recommended)

RV-507

Warranty

Material guaranteed to meet specifications for 6 months from date of shipment.

Storage

Store in a dry location at 5 – 25 °C.

DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

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Typical Properties

Resistivity

≤ 25 mΩ/□ at 25 μm fired film thickness

Viscosity

600 – 1000 Kcps Brookfield HBT
SC4-14 spindle and 6R utility cup
at 10 rpm, 25 °C

Solids

95.0 ± 1.0 %

Bladder Fill Machine Starting Parameters

Equipment	PTC Model VF-1000
Injection Pressure	10 – 20 PSI
Injection Time	5 – 10 sec
Clamp Time	5 – 10 sec

Note: Initial settings based on a 10 mil dia. Hole in a 25 mil thick substrate.

If C 5909A is to be used in a mixed metal circuit, a barrier material must be used. The recommended process materials are listed below:

Step 1) C 5909A	Gold Hole Plug
Step 2) C 4003	Barrier Conductor
Step 3) C 8710	*Ag Bottom Conductor
Step 4) C 5789	Gold Top Conductor

* Print over barrier interface

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